UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,127	08/21/2001	Andrew Augustine Wajs	5683P012	1890

21186	7590	04/28/2005	

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EXAMINER
CHAI, LONGBIT

ART UNIT	PAPER NUMBER
2131	

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>2/28/2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>21 August 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed on 2/28/2005 with respect to the subject matter of the instant claims have been fully considered but are not persuasive.

2.   As per claim 1, Applicant argues: "the cited prior art does not teach or suggest at least a plurality of ECM's comprises control information to control the decrypting means in such a manner that at least the time slots for second type of content signals are maintained in the first type of content signals".

3.   Examiner notes Applicant's arguments have been fully considered but are not persuasive. Morrison teaches a number of unique options are available and include a format for the presentation of audio/video commercials (i.e. advertisement) and other message materials without interfering with the delivery of the program materials within which the message materials are to be inserted; and message materials may be targeted at specific program subscriber groups and specific program categories (Morrison, see for example, Abstract Line 5 – 10). Examiner notes the specific program and commercial / advertisement message materials are interpreted as the 1st and the 2nd type of contents signals respectively to meet the claim languages. Morrison further teaches the entertainment materials are electronically supplied in a unique format of the program and message materials selectively interspersed with program break flags and message flags; and the flags identify and provide pre-selected access to the materials previously determined by the subscriber's service (Morrison, see for example, Abstract

Line 10 – 15). Thereby, <u>Examiner notes program break flags and message flags, as</u>

<u>taught by Morrison, can thus be considered as part of the ECM because Maillard</u>

<u>teaches the access criteria of the broadcast program is indeed part of the ECM</u>

<u>(Maillard, see for example, Column 7 Line 17 – 22)</u>. Morrison also discloses that in

operation, the encoded audio or video program materials, message materials, and

respective program break and message code flags are transmitted in encoded form to

the multitude of receivers, where all the received information is stored in <u>real time</u> in

respective storage locations (Morrison, see for example, Column 3 Line 64 – Column 4

Line 13). Furthermore, Morrison teaches the program break flags indicate <u>where (i.e.</u>

<u>delay as interpreted by Examiner) message materials (i.e. 2nd type of content signals)</u>

<u>are to be inserted in the program material (i.e. 1st type of content signals)</u>, and the

message flags identify the specific message to be inserted as well as provide <u>time</u>

<u>related information</u> (Morrison, see for example, Abstract Line 15 – 18 and Column 11

Line 11 – 25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

A person shall be entitled to a patent unless –

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
manner in which the invention was made.

1.   Claims 1 – 11 and 13 – 16 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Maillard (Patent Number: EP 0912052 A1), in view of Morrison

(Patent Number: 5815671), and in view of Wendorf (Patent Number: 5469431).

        As per claim 1 and 14, Maillard teaches a method for controlling the use of a

program signal in a broadcast system, comprising one or more broadcasters and a

number of receivers, at least a part of the receivers preferably having a storage medium

for storing program signals, wherein the program signal comprises content signals of a

first and a second type, wherein the second type of content signals is inserted in time

slots in the first type of content signals, wherein at least the first type of content signals

is scrambled using control words as scrambling keys to obtain a scrambled program

signal and wherein the scrambled program signal is broadcasted together with

entitlement control messages (ECM's) containing the control words in an encrypted

manner using a second key, wherein decrypting means are provided at each receiver

for retrieving the control words from the ECM's by decrypting the ECM's, and wherein

the control words are delivered by the decrypting means for descrambling the program

signal (Maillard, see for example, Paragraph [0003], [0033], [0037], [0056] and [0057]).

        Maillard does not disclose expressly that at least a plurality of ECM's comprises

control information to control the decrypting means in such a manner that at least the

time slots for second type of content signals are maintained in the first type of content

signals.

Morrison teaches at least a plurality of ECM's comprises control information to

control the decrypting means in such a manner that at least the time slots for second

type of content signals are maintained in the first type of content signals (Morrison, see

for example, Abstract Line 5 – 18, Column 7 Line 17 – 22, Column 2 Line 65 – Column

3 Line 15 and Column 11 Line 11 – 25: Morrison teaches a number of unique options

are available and include a format for the presentation of audio/video commercials (i.e.

advertisement) and other message materials without interfering with the delivery of the

program materials within which the message materials are to be inserted; and message

materials may be targeted at specific program subscriber groups and specific program

categories (Morrison, see for example, Abstract Line 5 – 10). Examiner notes the

specific program and commercial / advertisement message materials are interpreted as

the 1st and the 2nd type of contents signals respectively to meet the claim languages.

Morrison further teaches the entertainment materials are electronically supplied in a

unique format of the program and message materials selectively interspersed with

program break flags and message flags; and the flags identify and provide pre-selected

access to the materials previously determined by the subscriber's service (Morrison, see

for example, Abstract Line 10 – 15). Thereby, Examiner notes program break flags and

message flags, as taught by Morrison, can thus be considered as part of the ECM

because Maillard teaches the access criteria of the broadcast program is indeed part of

the ECM (Maillard, see for example, Column 7 Line 17 – 22). Morrison also discloses

that in operation, the encoded audio or video program materials, message materials,

and respective program break and message code flags are transmitted in encoded form

to the multitude of receivers, where all the received information is stored in <u>real time</u> in respective storage locations (Morrison, see for example, Column 3 Line 64 – Column 4 Line 13). Furthermore, Morrison teaches the program break flags indicate <u>where (i.e. delay as interpreted by Examiner) message materials (i.e. 2nd type of content signals) are to be inserted in the program material (i.e. 1st type of content signals)</u>, and the message flags identify the specific message to be inserted as well as provide <u>time related information</u> (Morrison, see for example, Abstract Line 15 – 18 and Column 11 Line 11 – 25).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Morrison within the system of Maillard because Morrison teaches an efficient and practical method to insert a variety of services containing commercial or other message services into the routine program material in a relative and real-time manner (Morrison: see for example, Column 1 Line 38 – 50 and Column 11 Line 20 – 25).

Morrison does not explicitly disclose the real-time insertion manner in the form of well-known time-slots of TDM technique. However, Examiner notes the TDM technique is well known in the field of real-time broadcasting system; for example, as shown in the prior art of Wendorf.

Wendorf teaches the broadcasting service type of program including ECM (Wendorf, see for example, column 6 Line 45) can be managed in dynamic time-slot manner (Wendorf, see for example, column 2 Line 65 – 67).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combine the teaching of Wendorf within the system of Maillard

as modified because (a) Maillard as modified teaches the insertion of message material

into the program material in relative and real-time manner (Morrison: see for example,

Column 11 Line 11 – 17), and (b) Wendorf further teaches an efficient and practical

method to maximize the total system transmission by re-assigning the time slots and

making this time-slot re-assignment user-invisible (Wendorf: see for example, Column 2

Line 64 – 67).

As per claim 2, Maillard as modified teaches the claimed invention as described

above (see claim 1). Maillard as modified further teaches a real time clock is operated

at the receiver side, wherein the control information of an ECM near the beginning of a

time slot for the second type of content signals indicates a delay before a next ECM can

be decrypted by the decrypting means (Morrison: see for example, Column 11 Line 20 –

25 and Column 7 Line 49 – 65 and Column 3 Line 5 – 15) & (Wendorf: see for example,

Column 2 Line 65 – 67).

As per claim 3 and 15, Maillard as modified teaches the claimed invention as

described above (see claims 1 and 14 respectively). Maillard as modified further

teaches the ECM's comprise first ECM's for the first type of content signals and second

ECM's for the second type of content signals, wherein at least a plurality of first and

second ECM's is provided with control information, wherein the decrypting means

checks the control information and delivers decrypted control words of the first or

second ECM's in accordance with the control information to descramble content signals

of the first or second type, respectively (Maillard, see for example, Paragraph [0033],

[0037]) & (Morrison: see for example, Column 2 Line 65 – Column 3 Line 15, Column 7

Line 49 – 65 and Column 3 Line 5 – 15).

As per claim 4, Maillard as modified teaches the claimed invention as described

above (see claim 3). Maillard as modified further teaches the control information of said

plurality of ECM's comprises timing information, wherein a real time clock is operated at

the receiver side, wherein the decrypting means checks the timing information of each

ECM by means of the real time clock and continues to deliver control words of the

ECM's for descrambling the pro5 gram signal only if the timing information corresponds

with the time indication provided by the real time clock (Maillard, see for example,

Paragraph [0033], [0037]) & (Morrison: see for example, Column 11 Line 15 – 16,

Column 3 Line 5 – 15 and Column 7 Line 59 – 65).

As per claim 5 and 16, Maillard as modified teaches the claimed invention as

described above (see claims 4 and 14 respectively). Maillard as modified further

teaches a sequence identifier and a minimum delay which should pass before a next

ECM should be decrypted are added to said plurality of ECM's as timing information,

wherein the decrypting means checks the time passed by means of the real time clock

and continues to deliver a next control word only if the time passed corresponds with

the minimum delay (Morrison: see for example, Column 11 Line 20 – 25 and Column 7

Line 49 – 65 and Column 3 Line 5 – 15) & (Wendorf: see for example, Column 2 Line 65

– 67).

As per claim 6, Maillard as modified teaches the claimed invention as described

above (see claim 1). Maillard as modified further teaches the control information of the

ECM's comprises a sequence identifier including an index number of the previous

and/or next ECM's, wherein the decrypting means checks the index number of a

received ECM against the expected index number, wherein the control word is only

provided if the index number received matches the expected index number (Wendorf:

see for example, Column 6 Line 45 and Column 10 Line 50 – 58).

As per claim 7, Maillard as modified teaches the claimed invention as described

above (see claim 1). Maillard as modified further teaches the control information of an

ECM comprises information on the insertion of the second type of content signals in the

first type of content signals (Morrison: see for example, Column 7 Line 49 – 65).

As per claim 8, Maillard as modified teaches the claimed invention as described

above (see claim 3). Maillard as modified further teaches at least a plurality of first

ECM's provides control information for the decrypting means indicating the decrypting

means to use a plurality of second ECM's, wherein the control information may

comprise timing information on the time period for using first ECM's and on the time

period for using second ECM's, and information on the point within the first type of

content signals for inserting the second type of content signals (Morrison: see for

example, Column 7 Line 49 – 65).

As per claim 9, Maillard as modified teaches the claimed invention as described

above (see claim 8). Maillard as modified further teaches the second type of content

signals comprise content signals with corresponding ECM's representing various

contents, wherein the control information of at least a part of said plurality of first ECM's

comprises selection identifiers for allowing only a selected content signal with

corresponding ECM's to be used for insertion into the first type of content signals as

second type of content signals, wherein in particular the selection identifiers select the

content signal depending on the time of the day (Morrison: see for example, Column 6

Line 58 – 61, Column 7 Line 5 – 11, and Column 2 Line 55 – 65).

As per claim 10, Maillard as modified teaches the claimed invention as described

above (see claim 8). Maillard as modified further teaches the decrypting means

enforces the receiver to use all second ECM's corresponding to the time period

indicated for using the second ECM's independent of the receiver being tuned to the

corresponding program signal source (Morrison: see for example, Column 3 Line 11 –

15).

As per claim 11, Maillard as modified teaches the claimed invention as described

above (see claim 1). Maillard as modified further teaches the ECM's are inserted in the

program signal in synchronisation with the change of the control words used to
scramble the program signal (Morrison: see for example, Column 3 Line 11 – 15).

As per claim 13, Maillard as modified teaches the claimed invention as described
above (see claim 3). Maillard as modified further teaches an ECM of the first ECM's for
the first type of content signals comprises control information to switch the decrypting
means to deliver only first ECM's for the first type of content signals if the decrypting
means indicate a viewing mode allowing the use of the first content signals only
(Morrison: see for example, Column 2 Line 35 – 38).

2.   Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maillard
(Patent Number: EP 0912052 A1), in view of Morrison (Patent Number: 5815671), in
view of Wendorf (Patent Number: 5469431), and in view of Takahisa (Patent Number:
5577266).

As per claim 12, Maillard as modified teaches the claimed invention as described
above (see claim 1 – 11). Maillard as modified does not disclose expressly disclose
wherein the decrypting means is provided as a software module broadcasted by a
broadcaster, wherein the software module is executed in the receivers, wherein the
software module is regularly changed by the broadcaster.

Takahisa teaches wherein the decrypting means is provided as a software
module broadcasted by a broadcaster, wherein the software module is executed in the

receivers, wherein the software module is regularly changed by the broadcaster

(Takahisa, see for example, Column 14 Line 10 – 15).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combine the teaching of Takahisa within the system of Maillard

as modified because Takahisa teaches an efficient method to extend software

download capability to provide the updated system software for use directly by the

receiver (Wendorf: see for example, Column 1 Line 59 – 62 and Column 2 Line 64 –

67).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Longbit Chai whose telephone number is 571-272-3788.

The examiner can normally be reached on Monday-Friday 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

                                            Longbit Chai
                                            Examiner
                                            Art Unit 2131

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